

## Comm #1 Pass Through

### General

Communication port number 1 is the port that is normally connected to a central facility and is the port over which data is retrieved from the CPP. Using simple commands, comm port #1 can be electrically connected to comm port #4 or the comm #3 ports.

### On Line Pass Through to Instruments

The CPP supports two types of pass through operation. One is an on line mode in which commands received on comm port #1 are interleaved with CPP polling commands and sent to connected instrumentation. The instruments response is then returned to comm port #1. This mode has the benefit of the instrumentation staying on line with the CPP, but has the drawback that a certain protocol must be maintained for proper operation.

To communicate with an instrument, connect to comm port #1 with the \$ID, and enter SETQ<cr>. Then enter D43<cr> and the CPP will respond with a list of instruments connected to the unit. Select the channel of the desired instrument and begin communications. The on line pass through is discussed in more detail in the CPP manual and in each application note for each manufacturer.

### Off Line Pass Through

The second type of pass through places the instrument in an off line mode with the CPP. In this mode, commands from comm port #1 are passed unabated to the instruments comm port, and instrument responses are returned to comm port #1. The CPP does not send commands to an instrument that is this type of pass through. This allows the user to conduct manufacturer supplied diagnostics on the instrument without interference from the CPP. The disadvantage is that the instrument is off line with the CPP and data is not being collected during this time.

### Commands

Connect with comm port #1 by entering \$ID (\$1 for example). The CPP echoes the ID. Table 1 below presents the commands used to pass through comm port #1 to another comm port in a CPP offline mode.

Table 1  
Pass Through Commands

SETQ<cr> = Pass comm port #1 to comm port #4  
SET0<cr> = Pass comm port #1 to comm port #3-0  
SET1<cr> = Pass comm port #1 to comm port #3-1  
SET2<cr> = Pass comm port #1 to comm port #3-2  
SET3<cr> = Pass comm port #1 to comm port #3-3  
SET4<cr> = Pass comm port #1 to comm port #3-4  
SET5<cr> = Pass comm port #1 to comm port #3-5  
SET6<cr> = Pass comm port #1 to comm port #3-6

To pass through to an instrument, select the appropriate comm port, e.g. SET0<cr>. This connects comm port #1 to comm port #3-0. Commands and instrument responses can now be exchanged between the user and the instrument, without interference from the CPP. The CPP will remain in this mode until either a \$ is received on comm port #1, or one hour elapses, at which time the CPP will switch out of the pass through mode and return to normal operation.